ABSTRACT

An adaptive generalized matched filter (AGMF) rake receiver system includes a rake receiver and an AGMF weight determination module. The rake receiver is coupled to a spread spectrum input signal and applies a vector of weight signals to the spread spectrum input signal to compensate for dependant noise and generate a decision variable. The AGMF weight determination module monitors the decision variable and generates the vector of weight signals, wherein optimal values for the vector of weight signals are calculated by the AGMF weight determination module by varying the vector of weight signals until the signal to noise ratio of the decision variable reaches a peak value